

Derleme | Review

# Digital Footprint Management in Digital Visual Culture

## Dijital Görsel Kültürde Dijital Ayak İzi Yönetimi

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### Abstract

In the development of digital visual culture, data emerges as the most important tool. Especially when the role of digital visual data in the construction of the virtual world is considered, it is seen that it is at the center of all digital processes. The actions and contents of the individual in the virtual environment develop depending on the management of the data.

When digital content processes are evaluated in the digital world, it is seen that data density increases at an exponential rate. In this framework, new scientific initiatives should be revealed in order for these contents to be defined as digital footprints and managed by the individual. It is important to define new concepts and processes for the management of data in digital communication processes, especially by considering the design area of the digital footprint and the contact points. In this context, new approaches have been tried to be put forward by considering the subject.

In this study, the subject has been dealt with descriptively in order to contribute to the literature, and it has been tried to reveal the expansions for the management of the digital footprint created through the design discipline in the formation of digital visual culture. In the research, it has also been tried to explain how the digital footprint affects the digital communication processes with examples.

**Keywords:** Digital Footprint Management, Digital Visual Culture, Design.

### Öz

Dijital görsel kültürün gelişiminde veri en önemli araç olarak karşımıza çıkmaktadır. Özellikle dijital görsel verinin sanal dünyanın kurgulamasındaki rolü ele alındığında, dijital süreçlerin tümünde merkezde yer aldığı görülmektedir. Bireyin sanal ortamda gerçekleştirdiği eylem ve içerikler verinin yönetilmesine bağlı bir şekilde gelişim göstermektedir.

Dijital dünyada dijital içerik süreçleri değerlendirildiğinde üstel bir hızla veri yoğunluğunun arttığı görülmektedir. Bu çerçevede bu içeriklerin dijital ayak izi olarak tanımlanarak birey tarafından yönetilebilmesi için bilimsel yeni açılımların ortaya konması gerekmektedir. Özellikle dijital ayak izinin tasarım alanı ile temas noktaları ele alınarak, dijital iletişim süreçlerinde verinin yönetilmesine yönelik yeni kavram ve süreçlerin tanımlanması önem arz etmektedir. Bu çerçevede konu ele alınarak yeni yaklaşımlar ortaya konmaya çalışılmıştır.

Bu çalışmada konu literatüre katkı sağlaması için betimsel olarak ele alınarak, dijital görsel kültürün oluşumunda tasarım disiplini üzerinden oluşturulan dijital ayak izinin yönetilmesine yönelik açılımlar ortaya konmaya çalışılmıştır. Araştırmada ayrıca dijital ayak izinin dijital iletişim süreçlerini nasıl etkilediği de örneklerle açıklanmaya çalışılmıştır.

**Anahtar Kelimeler:** Dijital Ayak İzi Yönetimi, Dijital Görsel Kültür, Tasarım.



## Introduction

The impact of the digital footprint on digital visual culture is increasing day by day. Accordingly, it becomes much more important to organize digital visual content produced through design in a manageable and controllable manner in virtual environments. In this respect, it is necessary to reveal the sub-components of digital footprint management and turn it into a disciplined process management. In this context, the study consists of three main parts. In the first part, the subject of digital media, digital footprint and digitalized society is discussed from a conceptual framework within the framework of the positioning of design in digital media. In the second part, the current situation has been tried to be revealed through examples of the practical use of digital footprints. In the third part, the relationship of digital footprint with technology and virtual world is discussed and predictions and inferences related to the future are tried to be given. In this context, it is thought that the study will contribute to the literature by examining the concept of digital footprint in terms of digitalization and social science.

### 1. Digital Media and Digital Footprint

The origin of the word digital is derived from the word “digitus”, which means finger in Latin. It is one of the oldest instruments used for counting fingers. The word digital is used today to express the digital technology consisting of 0s and 1s created by microprocessors. Personal computers, phones, internet and video cameras are tools with digital technology that are frequently used today. In addition, computer programs and software, websites, social media tools, mp3s, e-books can be shown as examples of digital technology (İgiglobal, 2021).

The way data is produced and consumed is important in digital technology. All kinds of data in the digital environment consist of a combination of 0 and 1 numbers. This structure, which is the basis of the coding of data, allows large-scale data to be stored on small devices, and thus the transfer and circulation of data can be realized faster. These developments in data technology have contributed to the development of fiber optic networks, which constitute the infrastructure of the internet, by causing groundbreaking innovations especially in the field of telecommunications. As a result of this, digitalization has started in television broadcasting, and since 1988, digital television broadcasting has allowed the audience to watch many television programs easily (Encyclopedia, 2021).

#### 1.1. Digitalized Media

Media; It is a comprehensive concept that includes communication tools and processes as a concept. The media consists of the messages that the society needs, such as news, music, movies, education, products, and communication tools such as television, radio, newspaper, telephone, and internet that convey these messages (Marketbusinessnews, 2016). Digitization, which increased its speed after the microchip revolution, has also taken the media under its influence. Due to digitalization, digital media and its sub-components, in which information and communication technologies are decisive, have begun to take shape in the axis of data-information (Buckingham, 2007). Accordingly, digitalization processes also change the sectoral dynamics of traditional media tools. “Communication activities in daily life have undergone a large-scale transformation with current communication tools used in both mass communication and interpersonal communication” (Dursun, 2010).

Media is called digital media depending on all these developments and it causes communication processes to change dimensions. As a result of this, data-

based communication accelerates, and there is a diversification and deepening in media production.

## 1.2. Social Media

The digital use of the social network begins with the first e-mail sent by Ray Tomlinson in 1971. E-mail invented by Tomlinson is a communication protocol used on ARPANET (Digitalage, 2018). According to Ryan's transmission:

*"Within a few years of its invention, e-mail has become much more than just a tool for one-to-one correspondence; It became a tool that allowed group discussions. An e-mail sent to a large number of recipients in 1975 created the first discussion group, "Msg-Group" (Ryan, 2019, s. 84).*

After this development, new networks began to form with the spread of personal computers. Inspired by the 1983 movie War Games, a couple created their own BBS (Bulletin Board System) on software previously developed by Ward Christensen and Randy Suess. The couple stated that they made many new friends throughout the country through this network. The billboard-like software, which can be used on personal computers, also allows storing files uploaded by external users; thus, the platform provides the opportunity to share various software, including pirated software, with wide circles. FidoNet, the development of the BBS system, was developed by Tom Jennings in 1987. BBS users, which were 6 thousand at this date, reached 45 thousand in 1992. This audience, which uses the network effectively, has also been the first to adopt the World Wide Web (Ryan, 2019, s. 71,72,73). The widespread use of platforms such as Facebook with the launch of the iPhone in 2007, and the increase in the connection speed of mobile devices with the 3G internet infrastructure in the world can be cited as the reasons for this acceleration. In 2007, people are now able to produce content such as photos and videos, and instantly share over social media platforms, thanks to "smart" mobile devices, without being connected to a fixed computer. Prior to this, the fact that the internet, due to its nature, enabled the activity of producing content by the users, led to the design of different websites based on the membership system, and opened the doors of a world based on instant personal sharing that will continue its effects until today. According to:

*"The extraordinary success of social networks begins with the opening of sixdegrees.com in 1997. The growth of original sites such as Friendster, Lunarstorm and MiGente was hindered by Myspace, which was again an extraordinary success, and finally, Facebook, from the growth of Myspace" (Yıldırım, 2012, s. 245).*

Based on these approaches, it can be said that the level of influence of social media in the world of digital communication is very high and it strengthens its position in digital media day by day.

## 1.3. Definition of Digital Footprint

The digital footprint is defined as the data points that an internet user leaves voluntarily or involuntarily in the cyber world. In its simplest terms, the digital footprint consists of recording every step you take on the internet by third-party software or individuals (Trthaber, 2021).

According to Statista's data for the first quarter of 2021, Facebook is the world's largest social media channel. 2.85 billion people actively use Facebook, while 3.45 billion people use the applications of Facebook's sub-companies such as Facebook, Instagram and Whatsapp on a monthly basis (Statista, 2021b). "Only Whatsapp has reached 100 billion

message traffic per day and the number of users has exceeded 2 billion” (Cumhuriyet, 2020). According to Aust and Ammann:

*“About sixty types of data are regularly recorded in these channels: where you are at the moment, what device you are using, which pages you access, how long you spend on these pages, who your friends are, what you like (Like/Like button), pressing the keys with castelwhom you are communicating at that moment. your speed, what kind of images you upload and download etc. (Aust & Ammann, 2019, s. 9).*

There are two types of digital footprint. These are called Active and Passive.

**a) Active digital footprint:** It is defined as your deliberate actions on the Internet and digital platforms. For example, a post you make on your social media account, an e-mail you send or cookie settings you accept are seen as conscious traces in the cyber world. Considering the use of channels such as Twitter, Facebook, Instagram, Snapchat, large amounts of data emerge (Norton, 2018). In the production and consumption processes of this data, the use of individual will is in question, and the responsibility and results of digital actions are personal.

**b) Passive digital footprint:** Traces left behind unintentionally or unknowingly in online situations. An example of this is that the websites you visit record your IP address without your consent. The location information obtained from a photo posted on social media by the user, the likes and comments received from these channels for commercial activities without user consent, and the tracking of some information of users who are not on that site with the help of cookies sent by websites to devices can be given as examples of passive digital footprint (Norton, 2018). In passive footprint production, there are processes that are imposed by the system without the will of the user and cannot be controlled. This situation causes negative results especially in the use of digital media.

## 1.4. Virtualized Society

Human is a social entity. Apart from his physical needs, he needs social processes in his relationship with life and society. For this reason, it can be said that human beings interact and communicate with their environment. The beginning of the communication process established by man is himself, and then continues outward from the center (from himself) with communities such as family, neighborhood, city, country and its natural environment. This communication network that humanity has managed to establish has played a major role in the development of civilization, although it has been a part of its own existence from past to present (Canan & Acungil, 2020, s. 38). Information technologies have developed in accordance with the human being as a social being and have become an integral part of daily life. At this point, especially the internet has made the network established between tribes global in the past and has allowed the individual to join different communities. According to Castells: “The Internet; it is a communication environment that allows many people to communicate for the first time on a global scale at the time they determine” (Castells, 2020, s. 31). With this technology, it can be said that the world of communication has been rapidly moved to the virtual environment via screens. This situation also transforms the individual’s forms of action in society and ensures that he exists with a digital identity through a virtual world.

### 1.4.1. Individualization

If evaluated from the conceptual framework, the word used to denote a single person or individual in the group or cluster to which they belong is the word “individual”. In addition,

the individual defines those who behave uniquely in the society. Apart from this, society is also a structure made up of individuals (Cambridge, 2021). Although the individual seems to be a free structure in himself, he is dependent on the land to cooperate with others in the face of nature and to be satisfied. The individual creates new inventions for himself in order to overcome or forget this dilemma. Thus, he pretends to be independent from nature and others, ignoring his own limitations (Bauman, 2018, s. 10,11).

The rapid progress of technology and the ruptures due to digitalization; It has left its place to new selves, individualized by the cyber world, by minimizing the survival instincts of human beings by cooperation. Simmel states that collaborations in modern society serve individuality with the following words: "As a matter of fact, all relationships with others are nothing more than stops on the way to reach my self in the final analysis" (Simmel, 2020, s. 216). Today, information technologies supported by the internet have facilitated the individual's access to information, and factors such as personalized marketing tactics, social media, e-commerce, and virtual communities that can be easily joined according to interests have made the individual feel more unique. "The majority of individuals who spend most of their time in the virtual world experience problems in their social, professional and private lives due to the use of the internet that they cannot control" (Karagülle & Çaycı, 2014). Especially when we look at the sub-components of the digitalization process called Industry 4.0, it is seen that there are systems and approaches that prioritize individualization. By prioritizing the individual so much, the digital world also allows individual action to have an impact on a global scale. Because in the digital world, personalized products and personalized services are offered. This makes it easier for the individual to be included in the global interaction.

#### **1.4.2. Screen Society**

Humans have spread to the world thanks to their ability to communicate and work together. "Raising a child requires constant help from other members of the family and neighbors, so it takes a whole tribe to raise a person. Evolution has thus supported those who can establish strong social ties" (Harari, 2016, s. 23). In the traditional sense, the structure consisting of a set of interconnected nodes is called a network. The new type of network powered by the Internet, on the other hand, is flexible, unbreakable, adaptable and evolving in cyberspace, connecting people, communities and institutions. According to Castells, a new network-based social structure began to emerge in the last quarter of the twentieth century. The harbingers of this are; management flexibility, economic needs for globalization, individual freedom and society's demands for transparent communication, and developments in information technologies (Castells, 2020, s. 29,30). In this regard, Tanol Türkoğlu said, "It is possible for people from all over the world to be in contact with each other without being affected by physical distance; but they don't even know who their next-door neighbors are" (Türkoğlu, 2010, s. 70) and stated that the network society has started to become an alternative to the real society of real life. From this perspective, it can be said that with digital communication processes, people interact with screens on the internet and this creates the profile of the individual connected to the screen.

## **2. Digital Footprint Usage Practices**

The concept of digital footprint is now effective in many areas from brands to companies, from political figures to states, from the advertising industry to education. One of the most important factors of this situation is the virtual interfaces with user-friendly



intellectual and visual design. These interfaces with strong indicators are designed for the user to spend a long time on that platform, to share their personal data and to do so with consent. Thus, the users guided by the design leave a large amount of data, that is, a digital footprint. The resulting data pools are used both in the digital field and in the physical world. In the following, it has been tried to examine how the digital footprint enters into an interaction process in three different areas.

### **2.1. Business World and the Digital Footprint**

Today, employment and unemployment are among the topics that are still on the agenda. Considering the human resources and trained workforce policies related to digitalization, the employment of the Z generation stands as an important issue. It is seen that the rules of the game in the recruitment processes have changed depending on digitalization. Now, your mobility and effectiveness in the digital world stand out in job interviews and the scope of your digital footprint becomes important as an evaluation criterion. Depending on this situation, some new methods are suggested for successful business negotiations within the scope of digital footprint. These; Think while sharing something on social media, do not share with instant emotions, adjust your privacy settings, stay away from social conventions, do not make private or extreme posts (Sandersonplc, 2017). According to the news of the Techinside website, 80% of employers check the social media accounts of the candidate they will hire. Facebook again leads the way in these controls, but Instagram has also been added to this process recently. Companies pay attention to the language in the candidate's posts and the content they publish. While the positive posts of the candidates about the field they work are seen positively by the employers, the posts they make about their colleagues and work environment are received negatively (Techinside, 2015).

Examples of being fired from his job because of the posts he made on social media are also quite common today. The Anadolu Agency correspondent, who shared tweets mocking the situation after a terrorist incident in France, was cut off from the company with a statement. It was also announced that Beşiktaş communication officer Rıdvan Akar was dismissed by the club due to his offensive posts after the match with Trabzonspor (Saruhan, 2020, s. 40,42). As can be seen from these examples, it can be said that the digital footprint strengthens its position in business life day by day and its power to influence processes increases.

### **2.2. Politics and the Digital Footprint**

One of the most up-to-date and well-known examples of the use of digital footprints in the field of politics and perception management was experienced during the 2016 presidential elections in the United States. The survey application developed by Cambridge University Professor Aleksandr Kogan, which is used to create the psychological profiles of US voters, requested access to your Facebook data before filling out the survey. In this way, he was able to access not only the accessed account but also the friend list information. The data of approximately 50 million people were collected through the survey, in which approximately 270 thousand people participated. These data were sold to a company named Cambridge Analytica (Budak, 2018).

According to the results of the Swiss Federal Institute of Technology's research on the Twitter agenda in Turkey; Half of Turkey's Twitter agenda turned out to be fake. In the statement, it was reported that 47% of the local agenda and 20% of the global agenda are fake. In the research covering the years between 2015 and 2019, it is reported that 108

thousand fake accounts created by computer software were created to manipulate the agenda (Trthaber, 2021). In the light of the examples given, it is seen that personal data is very valuable in our age. Personal data, created by digital footprints and used by various technology brands, directs an area that goes down to individual and corporate perception management in the field of politics.

### **2.3. Security and Digital Footprint**

Digital footprint is used in almost every field, especially in the field of intelligence, very effectively. After the Twin Tower attacks, the United States has started to work to control possible digital communication methods that will threaten national security. The internet, which had a very free structure until that time, has turned into a form that is followed by the intelligence services and regulated by the states after this period. According to Gürel's transfer from Kurtoğlu, the internet that guides humanity today has removed borders, changed the media, finance and trade, transformed people's perceptions, influenced politics, and changed the concepts of national security and national intelligence (Gürel, 2016, s. 27).

As the libertarian structure of the Internet developed, nation states began to see it as a threat to themselves. Thus, it is seen that various methods have been developed to control the internet. Collecting and storing digital data consisting of personal digital footprints is one of these methods. According to Aust and Ammann:

"One of the most famous German network activists, Andy Müller-Maguhn, born in 1971, who had been the spokesperson of the German hacker association (CCC) Chaos Computer Club for years, makes the following determination: "The structure of the Internet determines the political situation. It is a very dangerous matter to collect and record all data and payments in one central place. (...) This situation almost invites all data to be used in every way. This can be called abuse" (Aust & Ammann, 2019, s. 36). It has become an important issue to manage the digital footprint both individually and socially in all digital processes where the concept of security is passed. At the same time, this situation necessitates a paradigm change by reconsidering the concept of security in the digital world.

### **3. Design and Digital Footprint Management**

In today's digital age, managing data and using it efficiently under control are among the most important topics. Factors such as continuing sensor technologies, wearable technologies, and increasing internet speed depending on technological progress increase the amount of digital footprint left by users day by day.

The rapid change in digital visual culture can be cited as the reason for the exponential growth of the digital footprint. Considering that the content produced is photography, video, text based on visuality and content with graphical features, it can be said that the digital world is a ground for the individual to express himself through visuality. In this case, the expansion of the visual data's area of influence so much brings along many problems. If the user who produces and consumes visual data cannot manage digital processes well in the virtual world, it seems very difficult to escape from the manipulations of the digital system. For this reason, it can be seen as an essential situation that the impact of the concept of digital footprint management is understood in the society and that it is disseminated in all layers of society from an early age. In this section, in the light of the

information given above, it has been tried to convey how the digital footprint management will take a position in terms of design, technology and the future.

### **3.1. Interaction of Design with Digital Footprint on Digital Ground**

One of the most important digital platforms where the digital footprint is left is search engines. The most famous search engine, Google, is a platform with a very high indexing power, but it also takes personal data and information so strongly. There are also search engines that serve as part of the protection of personal data. For example, the search engine named “duckduckgo”, which stands out with the importance it attaches to personal privacy. According to the company’s statement, your digital footprints are not collected when you search on this search engine. In addition, the company is trying to make the “Do Not Track” setting, which is optional in most browsers, but not very functional, legal (Dünyahalleri, 2019). When we look at these rigging engines that manage the world’s digital data traffic through these examples, it is seen that the processes of producing or consuming data are shaped by visuality over visuality. It appears as a visual design object that includes content design elements that you get in any search you have made on Google. Here, design plays an important role in the delivery of digital content to the user and its interaction.

Mail services, which are frequently used today, can also use our personal data beyond our control. In this regard, the mail service “Protonmail”, which attaches importance to privacy, stands out. Proton mail protects the user with the encryption methods it has developed, and in this respect it differs from services such as Gmail and Hotmail (Wikipedia, 2016). Apart from these, it is recommended to use reliable VPN services, make calls and watch videos while your Google and Facebook profiles are closed. Thus, the data to be collected will be taken without being personalized and will not be very meaningful for data miners. However, in any case, a digital footprint is left, and these methods only alleviate the situation. Looking at these examples, it is seen that the contents produced individually or institutionally on digital e-bulletin and mail platforms are structured and interacted through visuality. In this respect, it can be said that controlling the data passes through checking the visual. Whether it is individual or corporate, visual elements such as photographs, graphics, symbols, emoji, typography and video are included in the content. Advertising content of companies, content shared on social media or data obtained through search engines can also be added to the examples. Even the images used as emoji alphabet today are the main actors of communication in the digital world.

The fact that visuality is used in such an intense and various ways while creating content in digital communication processes can be explained through the advantages such as speed, diversity, easy perceptibility, and impact that visualization provides to digital communication processes. Because digitalization uses visuality as the main ground for transforming data into usable information. Especially today, the effort of the Z generation (digital natives) to show themselves in the virtual environment with a new digital identity can only be done much faster and more effectively through visuality. Here, it can be said that the digital generation constructs their online creativity much more comfortably by using design knowledge (Palfrey & Gasser, 2017, s. 117). For example, the speed at which a message shared on Instagram reaches large masses or the expression of a message that will take up a whole page of space on messaging platforms with an emoji image proves that visuality is the main actor of digital processes in this regard. The visual elements in these processes also make it possible for the digital footprint to be included in digital interaction in a more refined and rapid manner. Here, the design allows the digital



footprint to be managed and controlled by the manufacturer. Because a personal photo or an ideological symbol shared online can evolve into difficult negative processes. In this respect, it can be said that digital visual interaction necessitates digital visual security today.

### **3.2. The Future of Digital Footprint**

Technology is advancing at an exponential rate. The spread of mobile devices and the rapid acceleration of the internet used in these devices are leading humanity towards a more digital future. "In other words, human nature is rapidly being transformed into information systems, which will lead to the emergence of a very pervasive global sensibility and leaving no secrets" (McLuhan & Powers, 2001, s. 10).

5G mobile communication technology, which will be offered to the end user in the near future, will carry the already developed mobile devices with a large number of users to a different dimension. Accordingly, technological developments in image processing and digital design can play an important role in controlling our digital footprint. In addition, many virtual environments such as social media channels that collect digital footprints, search engines, cloud computing-based film and music platforms will play an important role in the management of digital visibility. However, depending on the technological development, the entropy (disorder) that cannot be controlled in real life can be controlled by artificial intelligence in digital life and it will become much more difficult to protect personal privacy. In summary, companies, institutions and states that collect our personal data today will transform the visual culture with the designs of new devices, applications, software and virtual reality universe, and they will become better acquainted with the individual than the individual.

Another important breaking point in the digital world is the Metaverse. Mankind has made an effort to create a second virtual universe for itself with its own hands. It is a question of constructing a virtual universe as a digital twin of the physical real universe. While creating the metaverse, visual editing has a decisive position at the center of the work. In the metaverse, all the sub-components of the design are involved. In the virtual universe; digital imitation of people, companies and brands, nature and many objects in the physical world is in question. In all these formations, an effort is made to create a new world that pushes the limits of human imagination, by including visual fiction. In this new fiction, a new world is established in which the physical human being can take place in the metaverse with his digital avatar (digital twin) and can communicate via visual reality with virtual reality technology. Many areas, from business life to social and entertainment life, are being moved to this virtual universe, and a new digital visual culture is beginning to be formed here. In this respect, it can be said that all digital actions performed by the individual in Metaverse find meaning through visibility and can exist in this universe through a virtual visibility. In this case, all interaction processes in the metaverse can also be evaluated as digital footprint production processes based on visibility. In terms of digital footprint management, the interesting thing is that the digital footprint you leave has an equivalent in both the real physical world and the virtual metaverse world. This will lead to new processes that are difficult to control, especially in terms of managing the digital footprint based on visibility.

### **Conclusion**

With the Industry 4.0 process, there is an increase in the amount of data produced and consumed depending on the development of human activity in the virtual

environment. This situation causes processes that are difficult to control in the digital world. When we look at the way people act, especially in virtual environments, it is seen that they are included in the digital world through different identities. The digital system uses the individual through his digital identity in this sense and positions the individual as a resource that provides data to the system. In this context, all kinds of data that the individual leaves to the virtual environment as a data source is also called Digital Footprint.

The issue of controlling the digital footprint has become much more important, depending on the impact of technology on human life. Many new technologies such as the Internet of Things, Artificial Intelligence, Augmented Reality, and Metaverse transform the use of digital data through visuality, causing the digital footprint of the individual to diversify. In particular, it can be said that the design discipline is at the center of the processes in the practical applications of these technologies. For this reason, controlling and managing the digital footprint that develops through visuality, both individually and institutionally, is among the priority issues of today.

It is possible to notice the effect of the digital footprint on people's lives through the virtual world in many areas. It is seen that digital footprints are produced intensively in almost every field from politics to economy, from art to education. Considering that today's people especially realize their relationship with their environment and nature through screens, it is seen that the individual tries to construct a visualization for a much faster and more effective communication. Because the visual can be perceived much faster and can be effective. In this respect, it can be said that the footprints left in the digital world are a design object that emerges as a result of a visual design process. That is why the transformation of digital visual culture is taking place at an exponential rate. In this respect, today's digital person says, "I look; It can also be said that he adopted the motto of "I am, therefore I am". In this case, managing the digital footprint and controlling it with certain standards stands out as a multi-faceted issue. Considering that managing an audio or textual data is easier than managing a visual data, it can be said that all subtitles of digital media design can be included in a visual content. Therefore, in order to manage the digital footprint based on visuals, it is necessary to read the changes in the digital visual culture and analyze the social equivalent of visuality well.

In the projection for the future, it will be important to re-determine the position of the digital footprint in digital visual culture, both in the digital world and in the metaverse world, and establish certain standards. Especially in terms of digital footprint management, it is important to develop certain norms for the use of visual elements in digital communication processes (image, photograph, symbol, video, sign, shape, sound, emoji use, digital twin similarity rate, etc.), as well as to prepare legal regulations in the digital field. situation stands before us. Although the approaches of states and governments on this issue are important, since digitalization prioritizes the individual, it is necessary to reduce the issue to the individual and to develop various standards and rules for the position of the digital footprint of the individual in the digital media world. Individually, the individual must also have a certain level of design knowledge in digital data production and consumption. For this reason, it will be effective to include digital media design education in the education system at a young age and to give more importance to the subject of design in digital media literacy education. The evolution of digital footprint management in a more positive direction for future generations seems to depend on the policies to be implemented in this regard. However, considering that the

digital media world is a sector mainly composed of private companies, it will be important for digital technology companies and digital platforms to redefine the standards of visuality while developing products and services, and to reveal new expansions that allow the user to manage the content.

As a result, creating the necessary conditions for a safe world and a safe life seems to depend on the answer to the question of how to manage the digital footprint.

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# Dijital Görsel Kültürde Dijital Ayak İzi Yönetimi

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## Genişletilmiş Özet

Endüstri 4.0 süreci ile birlikte dijitalleşmenin toplumun tüm katmanlarına yayılarak etkinliğini artırdığı görülmektedir. Buna bağlı olarak bireyin sanal dünyada ortaya koyduğu etkileşim süreçlerinin içeriği değişmekte ve dijitalleşen bireyin yeni bir kimlikle dijital dünyada konum alma çabası içerisine girdiği görülmektedir. Bu durum bireyi dijital kapitalizmin çarkları arasına iterek bireyi hem içerik üreticisi hem de içerik tüketicisi pozisyonuna getirmektedir. Birey dijital dünyanın kendisine sunmuş olduğu sınırsız gibi görünen sanal imkanlardan faydalanırken, aynı zamanda sisteme veri sağlayarak istemli ya da istemsiz bir şekilde dijital kapitalizme katkı sunmaktadır.

Dijitalleşme sürecinde dijital kapitalizmin en önemli yaşamsal kaynağı *Veri* olarak karşımıza çıkmaktadır. Günümüzün petrolü olarak adlandırılan veri, sanal dünyanın varlığını sürdürmesinde ana unsur olarak görülmektedir. Dijital kapitalizmde yoğunlukla verinin dijital medya ve dijital sosyal platformlarda üretildiği ve veriye bağlı dijital iletişim süreçlerinde tüketildiği söylenebilir. Bu durum verinin yüksek potansiyele sahip bir araç olarak kullanılmasına sebep oluştururken, aynı zamanda bireyin dijital dünya ile olan ilişkisini de şekillendirmektedir. Dijital toplumda birey veri üzerinden sosyalleşmekte ve iş hayatını dijital dünyaya göre düzenlemektedir. Veri artık bireyin elinde hem bir güç hem de kendine dönen bir silah pozisyonundadır. Dijitalleşmede ve dijital medyada verinin bu iki yönlü durumu aynı zamanda dijitalleşmeye bağlı olarak dönüşen *Görsel Kültür* oluşumlarını da etkilemektedir. Çünkü veri dijital etkileşim süreçlerinde ağırlıklı olarak görsellik üzerinden sisteme girmekte ve dolaşımdaki etkinliği görsellik üzerinden derinleşmektedir. Tasarım dijital verinin sistem içerisindeki dolaşımını bu yönden yöneterek verinin çok daha kullanışlı hale gelmesine katkı sunmaktadır. Bu çerçevede dijital alanda kullanılan verinin ağırlıklı olarak *Dijital Görsel Veri* şeklinde üretilmesi ve tüketilmesi söz konusudur.

Dijital görsel verinin birey tarafından dijital kapitalizm içerisinde etkin bir şekilde kullanılması, bireyin dijital dünyadaki konumuna da etki etmektedir. Birey üretmiş olduğu içeriği görsellik üzerinden sistemde kullanırken, aynı zamanda dijital eylem biçimlerini görsellik üzerinden dönüştürmektedir. Dijital ortamda atılan bir mesajda kullanılan emoji, e-postaya eklenen görsel bir unsur veya sosyal medya üzerinden paylaşılan bir görsel içerik artık bireyin sanal dünyada görsellik üzerinden var olmaya çalıştığını göstermektedir. Bu bakımdan günümüzün okuryazarlığı olan dijital okuryazarlığın *Dijital Görsel Okuryazarlığa* dönüşerek, dünyayı görsellik üzerinden kurgulama çabasına dönüştüğü de söylenebilir. Dijital toplumda birey artık sanal dünyada görsellik üzerinden var olmakta ve buna bağlı olarak dijital kimliğini görsellik zemininde oluşturmaktadır. Bu durum; Descartes'in "düşünüyorum öyleyse varım" sözünü günümüzde "görüyorum ve görünüyorum, öyleyse varım" şeklinde değiştirdiği de söylenebilir.

Dijital toplumda bireyin üretmiş olduğu dijital görsel içeriğin sistem içerisinde kayıt altına alınması ve bu verinin çeşitli yazılımlar tarafından saklanması söz konusudur. Bu durum *Dijital Ayak İzi* kavramı olarak tanımlanmakta ve adlandırılmaktadır. Dijital Ayak İzi; sanal ortamda bilerek veya bilmeyerek sisteme sokulan veya sistemde kullanılan verinin depolanarak yine sistem tarafından bireye karşı kullanılmasına imkan sağlamaktadır.



Dijital ayak izinin özellikle dijital medyada gerçekleştirilen hemen hemen tüm süreçlerde oluşturulması söz konusudur. Atılan bir e-posta veya paylaşılan bir fotoğraf veri olarak sistem tarafından kayıt altına alınmakta, büyük veri ve bulut bilişim gibi sistemlerde depolanmaktadır. Üretilen ve depolanan bu verilerin özellikle dijital kapitalizm tarafından kullanıldığı görülmektedir. Bu durumun sonucu olarak dijital ayak izleri bireye bir ürün reklamı olarak geri dönebilmekte veya dijital alanda faaliyet gösteren firmalara veri kaynağı olarak sunulabilmektedir.

Dijital dünyada aynı zamanda dijital ayak izinin bireyin sosyal, kültürel ve iş hayatında kendisi ile ilgili geçmişine yönelik bilgi kaynağı olarak kullanılması da söz konusudur. Bu açıdan iş mülakatları, eğitim, sağlık ve alışveriş gibi çok çeşitli alanlarda dijital ayak izi üzerinden bireyin eğilimleri tespit edilmekte ve buna bağlı olarak kişiye özel ürün ve hizmet sunumu gerçekleştirilmektedir. Bu bakımdan bireyi önceleyen sanal dünyanın dijital ayak izini kullanarak bireye özel içerik üretimi, ürün ve hizmet sunumu için zemin oluşturduğu da söylenebilir.

Bu çalışmada tasarım referanslı dijital ayak izinin, bireyin dijital süreçlerdeki konumuna etkisinin betimsel olarak araştırılması yapılmıştır. Dijital ayak izinin özellikle dijital medya üzerinden üretilme şekilleri ve üretilen görsel içeriğin dijital ayak izi şeklinde hangi alanlarda kullanıldığı ortaya konulmaya çalışılmıştır. Dijitalleşen toplumda bireyin ürettiği verinin dijital kapitalizmde nasıl var olduğu, ayrıca sanallaşan toplumun verinin kullanımına yönelik mevcut durumu ortaya konulmaya çalışılmıştır. Çalışmada ayrıca dijital ayak izi referanslı küresel ve ulusal ölçekte etkileşim süreçleri irdelenerek, toplum ve birey için veri kullanımının önemi açıklanmaya çalışılmıştır. Ayrıca çalışmada; sosyal medya ve dijital platformlarda ortaya çıkan dijital ayak izinin bireyin sanal dünyadaki dijital kimliğini nasıl dönüştürdüğü incelenerek, dijital görsel kültür oluşumlarının referans noktaları belirlenmeye çalışılmaktadır.

Bu çalışmada bu yeni süreçlerin sosyolojik, ekonomik ve kültürel etkileri incelenerek konunun geleceğine yönelik çeşitli açılımlar ortaya konulmaya çalışılmıştır. Dijital ayak izinin geleceğine yönelik projeksiyonda ise dijital toplum içerisinde dijital ayak izinin kültürü nasıl dönüştüreceği ve bu bağlamda dijital ayak izi yönetimi yaklaşımının alt bileşenlerinin neler olabileceği öngörülmeye çalışılmıştır.

**Anahtar Kelimeler:** Dijital Ayak İzi Yönetimi, Dijital Görsel Kültür, Tasarım.

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